

NOTES ON GEOGRAPHIC DISTRIBUTION

Amphibia, Anura, *Hypsiboas stenocephalus*: Distribution extension and geographic distribution map

Julia Tolledo Santos¹
Eliaana Faria de Oliveira¹
Vinícius Avelar São-Pedro¹
Ana Cristina Monteiro-Leonel²
Renato Neves Feio¹

¹ Departamento de Biologia Animal, Universidade Federal de Viçosa.
Avenida P. H. Rolfs, s/nº, Campus Universitário. CEP 36571-000. Viçosa, MG, Brazil.
E-mail: juliatolledo@yahoo.com.br

² CEAM – Consultoria e Educação Ambiental.
Alameda Praia do Sol, 29. CEP 37704-405. Poços de Caldas, MG, Brazil.

Hypsiboas stenocephalus (Caramaschi and Cruz 1999) is a small treefrog (snout-vent length 26.0–30.4 mm in males), that belongs to the *Hypsiboas pulchellus* group and *Hypsiboas polytaenius* clade (Faivovich et al. 2004; 2005). Currently, the *H. polytaenius* clade includes nine species: *H. beckeri*, *H. buriti*, *H. cipoensis*, *H. goianus*, *H.*

latistriatus, *H. leptolineatus*, *H. phaeopleura*, *H. polytaenius*, and *H. stenocephalus*. This clade is characterized by small body size, elongated body, narrow head, dorsal longitudinal stripes, and no bars or blotches on anterior or posterior faces of thighs and inguinal region (Cruz and Caramaschi 1998; Caramaschi and Cruz 1999; 2000).

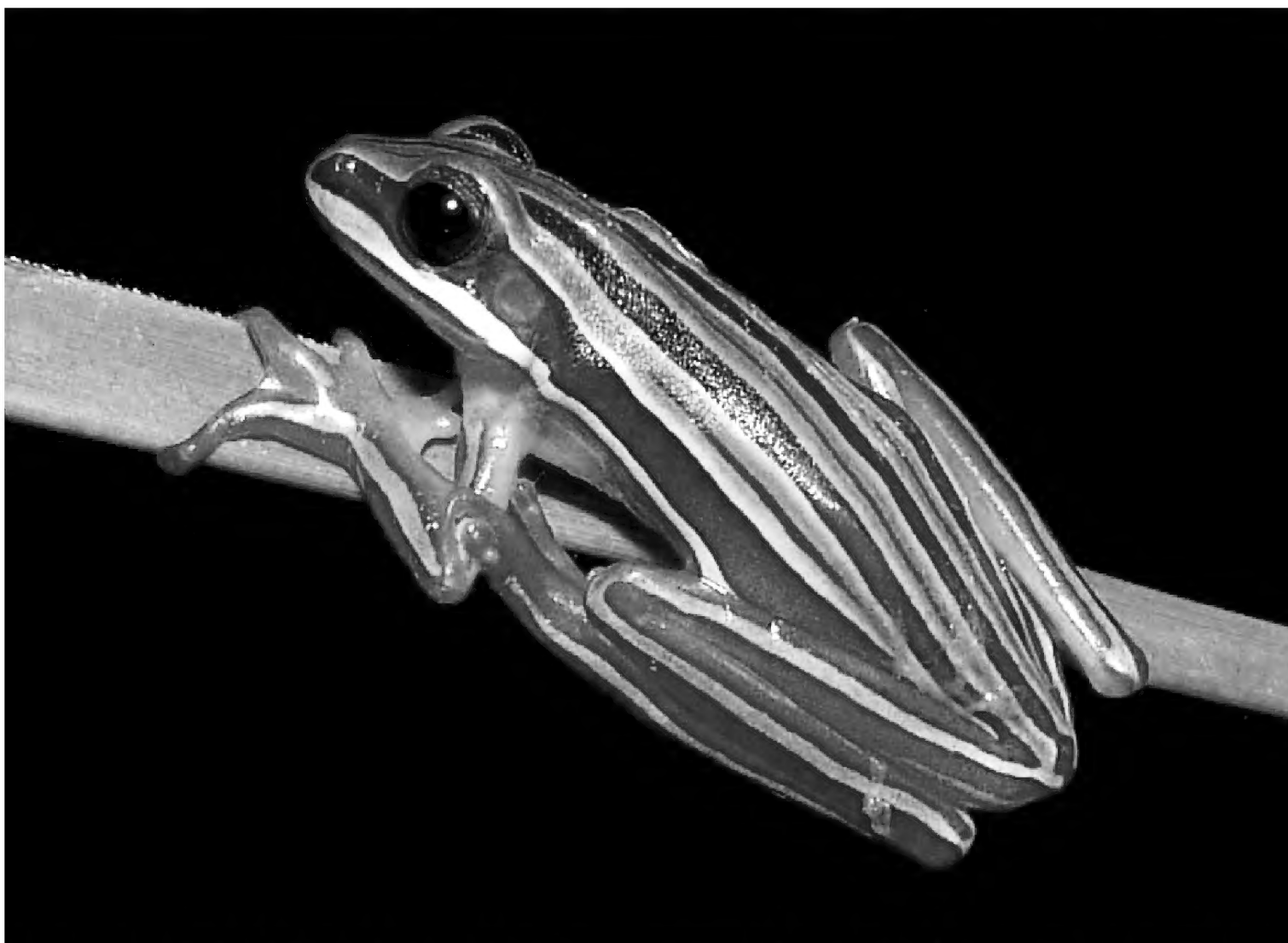


Figure 1. Adult male of *Hypsiboas stenocephalus* from RPPN Morro das Árvores, Poços de Caldas municipality, Minas Gerais state, Brazil. Photo by Ana C. Monteiro-Leonel.

NOTES ON GEOGRAPHIC DISTRIBUTION

This species is known only from the type locality in municipality of Poços de Caldas, state of Minas Gerais, Brazil (Caramaschi and Cruz 2004), although the precise local of its record is unknown. *Hypsiboas stenocephalus* is considered as “vulnerable” in the latest revisionary work on threatened species of flora and fauna of Minas Gerais state (Biodiversitas 2007), mainly because it is restricted to a single locality where the natural vegetation has been largely destroyed in the last decades. In the IUCN Red List of Threatened Species, *H. stenocephalus* is considered as “Data Deficient” due to lack of information on its extent of occurrence, area of occupancy, conservation status and ecological requirements (Caramaschi and Cruz 2004). We report in this note the recent rediscovery of *H. stenocephalus* in its type locality and an additional area.

On March 2008, during a fieldwork at Poços de Caldas, A.C. Monteiro-Leonel, E.F. Oliveira and

V.A. São Pedro collected eight individuals of *H. stenocephalus* (Figure 1) in the *Reserva Particular do Patrimônio Natural* (RPPN) *Morro das Árvores* (21°51'39"S, 46°30'30"W; elev. 1,397 m), located midway between the municipalities of Poços de Caldas and Caldas. The *RPPN Morro das Árvores* is a small protected area with 134 ha belonging to ALCOA-Poços, a multinational mining company. *Hypsiboas stenocephalus* was found calling in a disturbed flooded area covered by grass and bushes, with a few scattered puddles.

Additionally, during a fieldwork at *Parque Estadual da Serra do Papagaio* (22°10'57" S, 44°43'24" W; elev. 1,666 m), municipality of Alagoa, state of Minas Gerais, on November 2007, January 2008 and April 2008, individuals of *Hypsiboas stenocephalus* were collected by R. N. Feio, E. F. Oliveira, J. T. Santos and F. S. F. Leite (Figure 2).



Figure 2. Adult male of *Hypsiboas stenocephalus* from *Parque Estadual da Serra do Papagaio*, Minas Gerais, Brazil. Photo by Julia T. Santos.

NOTES ON GEOGRAPHIC DISTRIBUTION

The *Parque Estadual da Serra do Papagaio* (PESP, municipalities of Aiuruoca, Alagoa, Baependi, Itamonte and Pouso Alto, Minas Gerais state), situated at *Serra da Mantiqueira* (Mantiqueira Mountain Range), has about 23,000 ha and it is an important Atlantic Rain Forest remain which includes open fields and typical Atlantic and Araucaria forests. *Hypsiboas stenocephalus* was primarily collected in the park's neighborhood, in a place known as *charco*,

a flooded area covered by grass, with many puddles and ponds. Many individuals of *H. stenocephalus* were found calling on grass at the edge of the ponds. It was also calling in ponds and puddles at a fragment of Araucaria forest near the park administration office, but due to difficulties of access no specimens were collected. This new record extends the distribution of *H. stenocephalus* approximately 190 km eastward of its type locality, at Poços de Caldas (Figure 3).

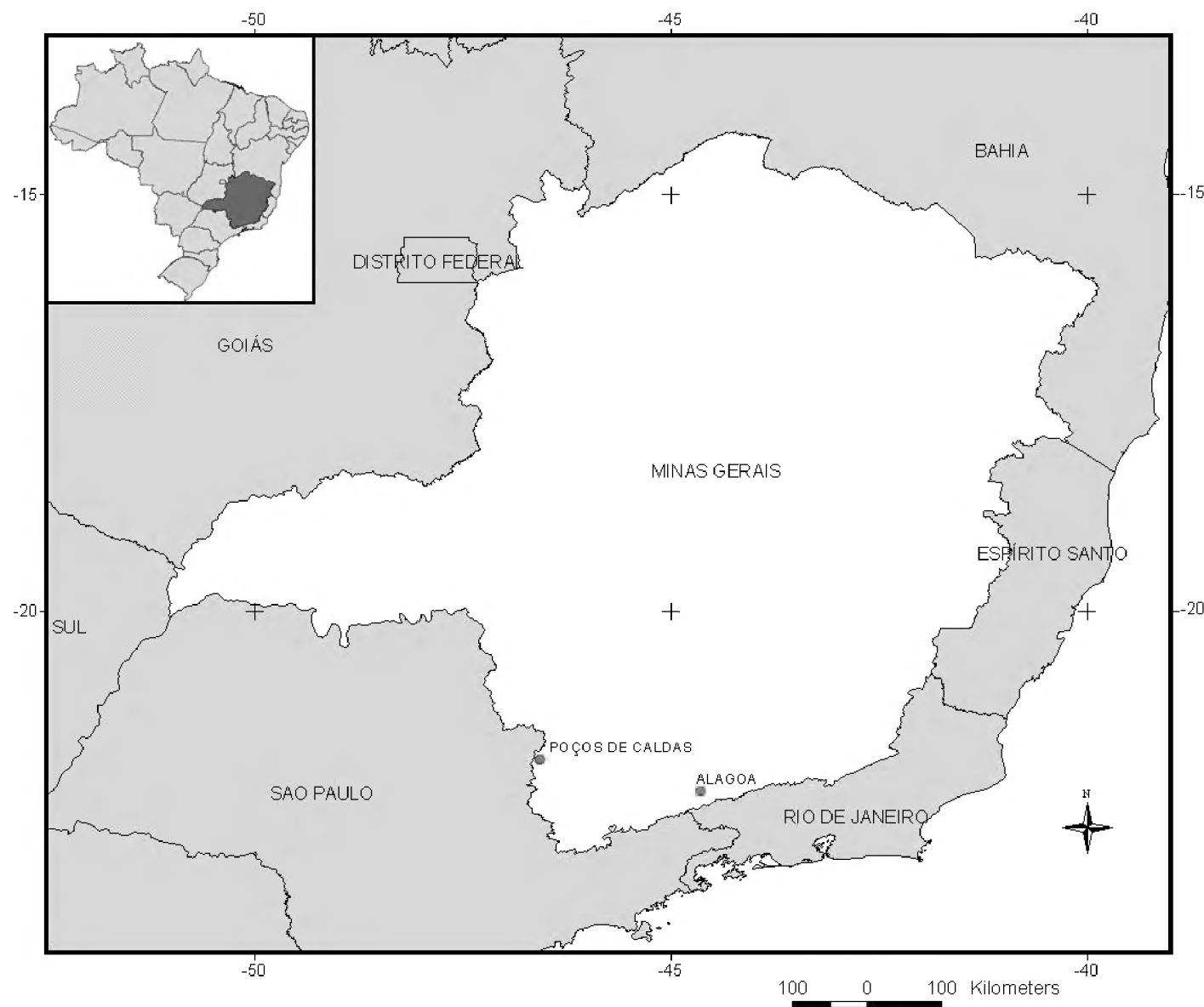


Figure 3. Distribution map of *Hypsiboas stenocephalus*: 1, Poços de Caldas municipality, Minas Gerais state (type locality); 2, *Parque Estadual da Serra do Papagaio*, Alagoa municipality, Minas Gerais state (new record).

The specimens from PESP (snout-vent length 29.60-32.85 mm; n=19) were larger than the type series (Caramaschi and Cruz 1999), whereas seven males from RPPN *Morro das Árvores* were similar in size (snout-vent length 27.85-29.25 mm) to them.

The specimens collected at *Parque Estadual da Serra do Papagaio* and Poços de Caldas in 2008 were deposited in the herpetological collection of

Museu de Zoologia “João Moojen”, Universidade Federal de Viçosa, at Viçosa municipality, Minas Gerais state, Brazil (MZUFV 8059-8065, MZUFV 8253-8260, MZUFV 8527-8531, MZUFV 8574-8581).

Although the occurrence of *H. stenocephalus* had not been reported in literature since it was first described (Caramaschi and Cruz 2004), one female of *Hypsiboas stenocephalus* (MZUSP

NOTES ON GEOGRAPHIC DISTRIBUTION

132550; 39 mm snout-vent length) was collected by A.C. Monteiro-Leonel, in 2002, at *Reserva Particular do Patrimônio Natural* (RPPN) *Retiro Branco* (21°46'47.30" S, 46°30'48.98" W; elev. 1,437 m), at Poços de Caldas municipality, at a locality belonging to ALCOA-Poços (Monteiro-Leonel, personal communication).

Some species have been considered endangered in Brazil because they are known only from a single location (IBAMA 2003; Haddad 2005; Silvano and Segalla 2005; Pimenta et al., 2005). Recent studies have shown that some species are more widespread than previously thought, such as

Zachenius carvalhoi, *Dendropsophus ruschii*, *Melanophryniscus moreirae* and *Phyllomedusa ayeaye* (Dayrell et al. 2006; Cassini et al. 2007; Weber et al. 2007; Araújo et al. 2007). Our findings are in agree with these works and indicate that geographic distribution and abundance of Brazilian anurans are still poorly known.

The present record provides an important contribution to the knowledge of *Hypsiboas stenocephalus* geographic distribution and allows for a more conscious evaluation of the conservation status of this species.

Acknowledgements

We thank Alcoa-Poços, *Instituto Estadual de Florestas* (IEF), *Valor Natural* and *Fundação Biodiversitas* for financial support, Larissa L. Moraes drew the map, Felipe S. F. Leite for fieldwork assistance, and Jorge A. Dergam for English review. Henrique C. Costa and Emanuel T. da Silva provided very useful comments on the manuscript and the *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (IBAMA) provided the collection permission (number 10504-1).

Literature cited

- Araújo, C. O., T. H. Condez, and C. F. B. Haddad. 2007. Amphibia, Anura, *Phyllomedusa ayeaye* (B. Lutz, 1966): Distribution extension, new state record, and geographic distribution map. *Check List* 3(2): 156-158.
- Biodiversitas. 2007. Revisão das listas das espécies da flora e da fauna ameaçadas de extinção do estado de Minas Gerais. Relatório Final, Volume 3 (Resultados: Lista Vermelha da Fauna de Minas Gerais). Electronic Database accessible at www.biodiversitas.org.br/listas-mg/RelatorioListas_mg_Vol3.pdf. Belo Horizonte, Minas Gerais, Brazil. Captured on 14 May 2008.
- Caramaschi, U. and C. A. G. Cruz. 1999. Duas espécies novas do grupo de *Hyla polytaenia* Cope, 1870 do Estado de Minas Gerais, Brasil (Amphibia, Anura, Hylidae). *Boletim do Museu Nacional* 403: 1-10.
- Caramaschi, U. and C. A. G. Cruz. 2000. Duas espécies novas de *Hyla* Laurenti, 1768 do estado de Goiás, Brasil (Amphibia, Anura, Hylidae). *Boletim do Museu Nacional do Rio de Janeiro* 422: 1-12.
- Caramaschi, U. and C. A. G. Cruz. 2004. *Hypsiboas stenocephalus*. IUCN 2007. 2007 IUCN Red List of Threatened Species. Electronic Database accessible at www.iucnredlist.org. Captured on 03 May 2008.
- Cassini, C. S., C. P. Neves, J. S. Dayrell, C. A. G. Cruz, and R. N. Feio. 2007. Amphibia, Anura, *Dendropsophus ruschii*: Distribution extension, new state record, and geographic distribution map. *Check List* 3(3): 190-192.
- Cruz, C. A. G. and U. Caramaschi. 1998. Definição, composição e distribuição geográfica do grupo de *Hyla polytaenia* Cope, 1870 (Amphibia, Hylidae). *Boletim do Museu Nacional do Rio de Janeiro* 392: 1-19.
- Dayrell, J. S., C. P. Neves, C. S. Cassini, and R. N. Feio. 2006. *Zachaenus carvalhoi* - Geographic Distribution. *Herpetological Review* 37: 360-361.
- Faivovich, J., P. C. A. Garcia, F. Ananias, L. Lanari, N. G. Basso, and W. C. Wheeler. 2004. A molecular perspective on the phylogeny of the *Hyla pulchella* species group (Anura, Hylidae). *Molecular Phylogenetics and Evolution* 32: 938-950.
- Faivovich, J., C. F. B. Haddad, P. C. O. Garcia, D. R. Frost, J. A. Campbell, and W. C. Wheeler. 2005. Systematic review of the frog family Hylidae, with special reference to Hylinae: Phylogenetic analysis and taxonomic revision. *Bulletin of the American Museum of Natural History* 294: 1-240.
- Haddad, C. F. B. 2005. Anfíbios; p. 61-63 In A. B. M. Machado, C. S. Martins, and G. M. Drumond (ed.), *Lista da Fauna Brasileira Ameaçada de Extinção*. Belo Horizonte, Fundação Biodiversitas.
- IBAMA, Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis. 2003. Instrução

NOTES ON GEOGRAPHIC DISTRIBUTION

Normativa nº. 3 de 27 de maio de 2003. Lista das Espécies da Fauna Brasileira Ameaçada de Extinção. Brasília, IBAMA.

Pimenta, B.V.S., C.F.B. Haddad, L. B.Nascimento, C.A.G., Cruz, and J. P. Pombal Jr. 2005. Comment on “Status and Trends of Amphibian Declines and Extinctions Worldwide”. Technical Comment. *Science* 308: 1999b.

Silvano, D. L. and M. V. Segalla. 2005. Conservação de anfíbios no Brasil. *Megadiversidade* 1: 79-86.

Weber, L. N., L. S. Procaci, R. O. L. Salles, S. P. Silva, A. L. Corrêa, and S. P. Carvalho-e-Silva. 2007. Amphibia, Anura, Bufonidae, *Melanophryniscus moreirae*: Distribution extension. *Check list* 3(4): 346-347.

Received September 2008

Accepted December 2008

Published online February 2009